NOTE

Two new synonyms in Rhyacophilidae (Trichoptera)

Specific identifications of Trichoptera almost invariably depend on examination of the genitalia, and principally those of the male which exhibit characteristics that are far more conspicuous than those of the female. Regarding specific characters of caddisflies McLachlan (1874, *A monographic revision and synopsis of the Trichoptera of the European fauna*. Pt. 1:1–46. London) remarked, "Colour, minor points of neuration, &c., furnish these characters in part; but the most important are found in the anal appendages, especially of the male." Over the years this method has become a well established convention in Trichopterology, and today the description of the male genitalia is essential in virtually all caddisfly species descriptions. However, in the past this method was not so universally accepted and many species that were described solely on the basis of females can only be regarded presently as *nomina dubia*. Fortunately, subsequent taxonomic contributions have made it possible to identify the females of most of the eastern North American species of *Rhyacophila*. Recent examination of the female holotypes of two species has revealed that *Rhyacophila formosa* Banks is conspecific with *vuphipes* Milne, and *mainensis* Banks with *melita* Ross. *Formosa* is a member of the *fuscula* group that includes one other species, *fuscula* (Walker). *Mainensis* is a member of the *siberica* group that includes only four other eastern species, *amicis* Ross, *atrata* Banks, *manistee* Ross, and *minor* Banks. Female descriptions of all of these species have been provided by Schmid (1981, Mém. Soc. Ent. Canada 116: 1–83), with the exception of *amicis*. However, I have examined the female of *amicis* and find that, as in the females of all the aforementioned species, it is quite distinct.

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Rhyacophila formosa Banks

Rhyacophila formosa Banks 1911, Trans. Amer. Ent. Soc. 37: 353, 355, ♀.

Rhyacophila vuphipes Milne 1936, Studies N. Amer. Trich. Cambridge, Pt. 3, pp. 99, 102, 111, fig. ♂. NEW SYNONYM.

Examination of the ♀ holotype of *formosa* [MCZC] has revealed that it matches the description of *vuphipes* provided by Schmid (1981). Thus, the latter is recognized here as a junior synonym of *formosa*. This species is widespread along the east coast of North America, but it is not especially common. Sherberger and Wallace (1971, New York Ent. Soc., 69: 43–44) mention that larvae occur in small, rocky rivers. Reliable records are known from Georgia, Massachusetts, New York, North Carolina, Ontario, Pennsylvania, Quebec, South Carolina, Tennessee, and West Virginia.

Rhyacophila mainensis Banks

Rhyacophila mainensis Banks 1911, Trans. Amer. Ent. Soc. 37: 354, ♀.

Rhyacophila melita Ross 1938, Ill. Nat. Hist. Survey Bull. 21: 104–105, f. 6, ♂. NEW SYNONYM.

Examination of the ♀ holotype of *mainensis* [MCZC] has revealed that it matches the description of *melita* provided by Schmid (1981). Therefore, the latter is recognized here as a junior synonym of *mainensis*. Reliable records are known from Maine, Massachusetts, Michigan, New Hampshire, Newfoundland, New Jersey, New York, Quebec, and West Virginia.

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